

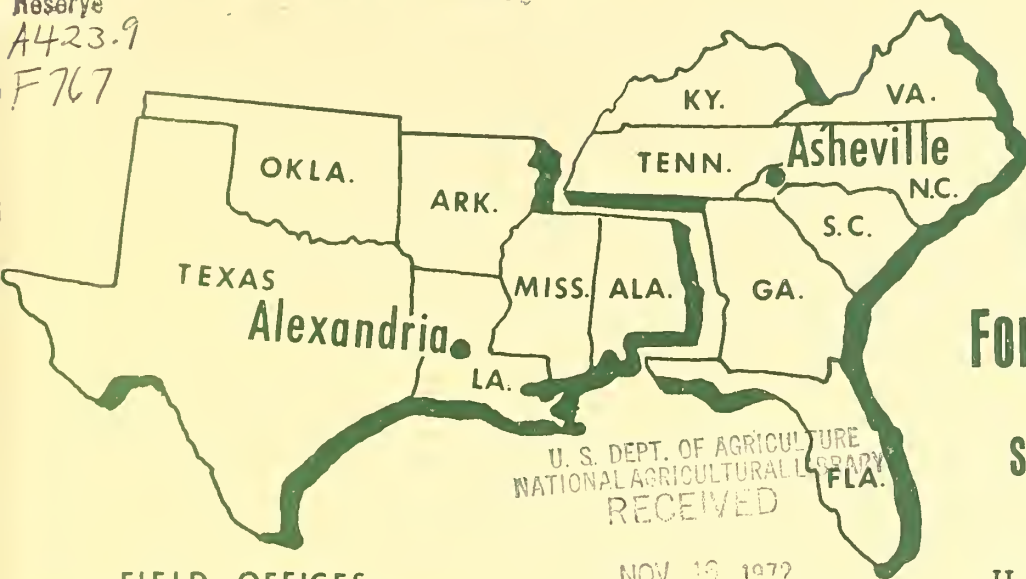
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# Southern Forest Pest Reporter

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## ENVIRONMENTAL PROTECTION AND IMPROVEMENT Forest Pest Management Southeastern Area STATE AND PRIVATE FORESTRY

FOREST SERVICE  
U.S. DEPT. OF AGRICULTURE  
August, 1972

FIELD OFFICES  
Asheville, N.C.-Alexandria, La.

PROCUREMENT SECTION  
CURRENT SERIAL RECORDS

1720 PEACHTREE ST. N.W. ATLANTA GA. 30309

### SUMMARY OF CONDITIONS



.... Southern pine beetle infestations remain extensive, expanding in some localities, in Alabama, Georgia, Louisiana, North Carolina, South Carolina, and Texas. High populations continue to cause concern in localized areas of Arkansas, Mississippi, and Tennessee.



.... Gypsy moth defoliation surveys were made in a joint effort by Forest Pest Management and the Virginia Division of Forestry for the first time in July. Early reports concerning the South-wide detection trapping program by APHIS indicate male moths located at three sites in North Carolina, two each in South Carolina and Tennessee, and one in Virginia. All interceptions were made in recreation areas.



.... Dutch elm disease continues its southward movement through the Piedmont region of the Carolinas.

.... Comandra blister rust was discovered in Kentucky for the first time in a Crittenden County loblolly pine plantation.

.... Cylindrocladium root rot was isolated from 1-0 walnut seedlings from the Pennyryle State Nursery, the second nursery in Kentucky so affected.



## STATUS OF FOREST INSECTS

### Pine Bark Beetles

SOUTHERN PINE BEETLE, Dendroctonus frontalis Zimm.

#### ALABAMA

The southern pine beetle is causing widespread timber losses in pine stands throughout 26 counties in the State of Alabama. Infestations are occurring in most of the pine type in the State. This epidemic is probably one of the worst in Alabama's history. (Alabama Forestry Commission)

Results of spring evaluations revealed an epidemic population on the Talladega District of the Talladega National Forest and a decrease in infestations on the Oakmulgee District. Brood densities for the entire Forest were moderate (200 insects per sq. ft.). The volume of currently infested timber was estimated to be 141 MBF. Preliminary results of the summer evaluation show a dramatic increase on the Oakmulgee District. Unconfirmed reports of activity on the Bankhead National Forest have been received by the Forest Pest Management Group.

#### ARKANSAS

During May southern pine beetle detection surveys were conducted in the southern counties of Ashley, Bradley, Calhoun, Columbia, Drew, Lafayette, and Union. Ground examinations in all counties except Ashley were negative for the beetle. Most of the large infestations in Ashley County were in pine plantations near Berlin, Arkansas. The Arkansas Forestry Commission conducted a subsequent detection survey that revealed a total of 180 spots which have not been examined at the present. (Arkansas Forestry Commission)

#### GEORGIA

An evaluation of southern pine beetle infestations was conducted in March over a 22 county, 2 million acre area in central Georgia by Forest Pest Management in cooperation with the Georgia Forestry Commission. Results of the evaluation indicated an expanding southern pine beetle population with an estimated 1700 spots containing over 23,000 infested trees. An active control program centered around salvage has been initiated by the State.

On the Federal lands in Georgia, a June evaluation revealed a moderate level of southern pine beetle activity on the Uncle Remus District of the Oconee National Forest, the Hitchiti Experimental Forest and the Piedmont National Wildlife Refuge. There were an estimated 36 infested trees per M acres of host type over the three unit area located in central Georgia. Control efforts which have been underway in each of these units since November of 1971 have resulted in the salvage of over 1.5 million board feet. Control efforts are continuing.

In northeastern Georgia, evaluations are currently underway to determine status of the southern pine beetle on the Chattooga and

- GEORGIA  
(CONT'D) Tallulah Ranger Districts of the Chattahoochee National Forest. Numerous beetle spots consisting of over 100 trees each have been reported and potential for late summer damage is believed high at this time.
- LOUISIANA Since September 1971, 25 million board feet of sawtimber and 25,000 cords of pine pulpwood have been salvaged as a control measure for southern pine beetle. A recent evaluation by the Louisiana Forestry Commission showed that the beetle is infesting pine stands on 6 million acres throughout 19 parishes in the State. Bark samples revealed moderate brood levels of 141 insects per ft<sup>2</sup> of bark surface with an abnormal absence of parasites and predators. (Louisiana Forestry Commission)
- The most recent evaluation on the Kisatchie National Forest revealed that approximately 234 M board feet of pine timber was currently infested by the beetle. The average brood density was 242 insects per ft<sup>2</sup> of bark surface.
- MISSISSIPPI Surveys conducted by the Mississippi Forestry Commission this spring revealed innocuous populations in Adams, Amite, Franklin, Jefferson, and Wilkinson Counties. (Mississippi Forestry Commission)
- An evaluation was conducted on the Homochitto National Forest during April 1972. Results showed low level populations with moderate timber losses. Brood densities were 52 insects/ft<sup>2</sup> of bark surface.
- Populations of southern pine beetle greatly increased over previous years and were the highest ever detected along the Natchez Trace Parkway. The area infested with southern pine beetle was between Natchez and Jackson, Mississippi, in the western part of the State.
- NORTH CAROLINA The initial aerial phase of an evaluation currently underway over the Tusquittee Ranger District of the Nantahala National Forest in western North Carolina revealed a rapidly expanding beetle population. Beetle activity, which is showing signs of increased infestation intensity (larger and more numerous spots), is also expanding in its range over the District. A recent presuppression flight by district personnel revealed over 60 new spots. Subsequent marking of 3 of these spots for salvage resulted in over 400 trees, two-thirds of which were green.
- An evaluation of the Uwharrie Ranger District in central North Carolina bore inconclusive results due to the delay in seasonal beetle activity in the area. Subsequent ground observations by district personnel revealed substantial beetle activity and a follow-up evaluation is scheduled this month.
- Although conditions are generally improved, southern pine beetle on State and private lands continues to be a problem in the central Piedmont of North Carolina. Counties affected include Randolph, Surry, Davie, Davidson, and Stanly. (North Carolina Department of Natural Resources)



SOUTH  
CAROLINA

An aerial reconnaissance and ground survey conducted by the South Carolina State Commission of Forestry in late June 1972 indicates high populations of southern pine beetle in four northern Piedmont counties. The survey covered 300,000 acres in Cherokee, York, Union, and Spartanburg Counties. Presuppression surveys are underway in this area to locate spots for salvage operations so losses can be minimized. Aerial and ground surveys are also underway in eleven other Piedmont counties to detect additional outbreak areas. (South Carolina State Commission of Forestry).

On Federal lands in South Carolina, southern pine beetle is active on districts of both the Sumter and Francis Marion National Forests. An evaluation in June 1972 of the Enoree Division (Tyger and Enoree Districts) of the Sumter National Forest indicated that there were an estimated 38 infested trees per M acres of host type. Control programs to remove infested material which were begun in late 1971 are continuing.

Southern pine beetle also remains active on the Andrew Pickens District of the same Forest. A June 1972 evaluation revealed an estimated 48 infested trees per M acres of host type. This infestation which began in the fall of 1971 is in the northwestern corner of the State. Control activities are continuing in an effort to minimize losses.

A June 1972 evaluation on the Francis Marion National Forest revealed an estimated 11 infested trees per M acres of host type. Control action, initiated early this year, is continuing.

An evaluation on the King's Mountain National Military Park revealed an increasing southern pine beetle population. There are an estimated 121 infested trees per M acres of host type. Potential for even higher levels is great.

TENNESSEE Several small southern pine beetle spots discovered in late 1971 in McMinn and Monroe Counties in southeastern Tennessee were effectively curtailed as a result of cold weather in January 1972. (Tennessee Division of Forestry)

Initial phases of an evaluation (aerial coverage) on the Tellico Ranger District of the Cherokee National Forest in eastern Tennessee revealed a continuing southern pine beetle problem but at a somewhat reduced level from that recorded early this spring (fewer and smaller spots). Control activities centered around salvage of infested spots are continuing.

The aerial phase of a not-yet completed evaluation over the northeastern portion of the Great Smoky Mountains National Park revealed some very large spots, and numerous small ones between Gatlinburg and Mt. Leconte. This represents an eastern movement of the beetle's previous range on the Great Smoky Mountains National Park. Numerous spots were also detected along the eastern border of the Park adjoining the Cherokee Indian Reservation.

TEXAS Between April and June, there was a significant increase in southern pine beetle activity on Texas Forest Service Districts 3, 4, 5, and 6. Infestations have been reported as far as 30 miles north of Lufkin. Mills are receiving an unusually large amount of beetle killed timber. The latest survey showed an almost three-fold increase compared to the same time last year. (Forest Pest Activity Report, Texas Forest Service)

A recent survey conducted on the Angelina and Sabine National Forests indicated a moderate level of southern pine beetle activity on these 2 Forests. Brood densities average 170 insects/ft<sup>2</sup> of bark surface. Populations are reported to be increasing on the Davy Crockett and Sam Houston National Forests.

VIRGINIA A May survey of the Richmond National Battlefield Park and the Colonial National Historical Park revealed low levels of southern pine beetle activity. While some localized infestations continue to remain active, current losses are low. An active program of infested tree removal on these Parks has contributed greatly to keeping the populations at a low level.

Favorable climatic conditions, including ample rainfall, are believed responsible for the currently low levels of southern pine beetle activity in the piedmont and coastal area of Virginia. (Virginia Division of Forestry)

#### BLACK TURPENTINE BEETLE, Dendroctonus terebrans (Oliv.)

ARKANSAS Increased activity has been reported in several areas of the State. The beetles are attacking pines that have been weakened by lack of rainfall. (Arkansas Forest Pest Report)

LOUISIANA A build-up of black turpentine beetle has been observed on the Evangeline District of the Kisatchie National Forest. Most of the activity is in areas which have had recent cutting operations.

TENNESSEE Over 50 percent of the trees in a 3-4 acre old growth shortleaf pine stand near Athens, Tennessee were found heavily infested by black turpentine beetle. Stagnated overmature timber and heavy cattle grazing activity were believed primarily responsible for the infestation. (Tennessee Division of Forestry)

TEXAS Activity has increased, being especially high in District 1 (Linden, Texas). Control measures have been to salvage where possible and the use of BHC on shade trees on high value areas. (Forest Pest Activity Report, Texas Forest Service)

#### IPS ENGRAVER BEETLES, Ips sp.

ARKANSAS An increase in activity has been observed generally throughout the

- ARKANSAS (CONT'D) State. Salvage operations are being carried out to suppress a heavy build-up. Areas defoliated by loblolly pine sawfly this spring are good possibilities for an outbreak of Ips. (Arkansas Forest Pest Report)
- FLORIDA A state-wide survey recently completed for insects and diseases in Florida revealed below normal activity by Ips bark beetles and also black turpentine beetle. The low levels of activity are attributed primarily to above average rainfall over major portions of the State. (Florida Division of Forestry)
- TEXAS Increased activity has been reported in Texas Forest Service Districts 1, 2, 3, and 7. Contributing factors to beetle attack have been logging, damaged trees, poor soil conditions, lightning, dry weather and other tree stresses. (Forest Pest Activity Report, Texas Forest Service)

### PINE DEFOLIATORS

#### SAWFLIES

- ARKANSAS Activity of the red-headed pine sawfly, Neodiprion lecontei (Fitch), was reported from Columbia County. Damage was observed on 120 acres of International Paper Company land growing 2 year old seedlings. The Arkadelphia, Springhill, and Camden areas also reported sawfly activity. (Arkansas Forest Pest Report)
- KENTUCKY A statewide survey for sawfly damage revealed scattered defoliation by the Virginia pine sawfly (N. pratti pratti) in eastern Kentucky. Defoliation ranged from 10 to 70% on shortleaf, Virginia and pitch pine. On the same survey, defoliation by the Arkansas sawfly (N. taedae linearis) was detected on loblolly pine over the western portion of the State. Defoliation ranged from 50 to 100 percent. (Kentucky Division of Forestry)
- SOUTH CAROLINA A population of the pine sawfly, Neodiprion excitans (Roh), in the loblolly pine geographic sources on the Francis Marion Seed Orchard threatens to cause serious defoliation. A recent report of this insect in North Carolina indicates that it has only two generations in the first half of the summer and then goes into a pre-pupal diapause until November. The orchard population is being watched carefully to see how it behaves in coastal South Carolina. At present there are no pesticides registered for use against this insect. A pilot test using malathion is under consideration for the dual purposes of regulating the population and collecting efficacy data for registration of a pesticide for this pest.
- TENNESSEE Defoliation by the Arkansas (N. taedae linearis) and Virginia pine (N. pratti pratti) sawflies is reported less severe in eastern Tennessee than in recent years. Except for isolated stands, populations are generally at a very low level.



- TENNESSEE (CONT'D) Between 20 and 30 percent mortality due to defoliation by the red-headed pine sawfly (N. lecontei) occurred in a 2 acre stand of 4 year old loblolly in Franklin County. Heavy defoliation also occurred on about 20 percent of a 2 year old loblolly stand on the Cumberland Plateau. (Tennessee Division of Forestry)
- TEXAS The red-headed pine sawfly defoliated pines in Wood, Rusk, Panola, Colorado, and Walker counties in 1971. One report of 500 loblolly pines infested came from Walker County. Overall, the sawfly problem was light in 1971. (Texas Forest Pest Reporter)
- TOWN ANT, Atta Texana (Buckley)
- LOUISIANA Approximately 1000 acres of pine seedlings were partially to completely defoliated in Vernon Parish by the Texas leaf cutting ant. No attempt was made to control the pest.
- TEXAS The town ant or Texas leafcutting ant has been found scattered over east Texas, being most serious in the following counties: Bastrop, Nacogdoches, Shelby, Rusk, San Augustine, Walker, Newton, and Caldwell. During 1971 several thousand pine seedlings were defoliated by the pest. Mirex bait has been used to control the Texas leafcutting ant. (Texas Forest Service)
- REPRODUCTION WEEVILS, Hylobius pales (Hbst.) and Pachylobius picivorus (Germ.)
- LOUISIANA From 9 to 10% mortality was found on over one thousand acres of pine seedlings in Vernon Parish. Much of the area had been planted within 6 months after logging. Sample discs (2" thick radial discs) averaged over 5 weevils per disc when left overnight. No attempt was made to control these pests.

#### SEED ORCHARD INSECTS

- NANTUCKET PINE TIP MOTH, Rhyacionia frustrana (Comst.)
- ARKANSAS Close observation of flights and egg hatch was beneficial in timing spray schedules at the Ouachita Seed Orchard against the first spring generation of tip moth. Dimethoate applied 2 to 3 weeks after the first sign of egg hatch kept damage to a minimum. However, it did not prevent conelet damage. This indicates that larvae bore not only into needles of shortleaf pine but also into conelets before attacking tips. Next spring sprays should be applied as soon as egg hatch begins to prevent conelet losses. Conelet protection from tip moth is needed only during the period of pollination. After receptivity conelets harden and cease to be attacked.

- MISSISSIPPI Approximately 8 acres of North Mississippi loblolly pine were 50 percent defoliated by a suspected needle miner at the Erambert Orchard. After the larvae were reared from the needles they were identified as typical Nantucket pine tip moths. Rhyacionia frustrana (Comst.). The feeding damage was atypical in that larvae not only fed in the mined needles but also pupated therein. Very few larvae were found in the vegetative buds.
- OKLAHOMA Heavy damage (60 percent of tips infested) to Scotch and Ponderosa pine seedlings occurred at the State Nursery in central Oklahoma. (McClain County)
- SOUTH CAROLINA The results of a July inspection of the Francis Marion Seed Orchard indicated an increase in the number of trees infested by the Nantucket pine tip moth, Rhyacionia frustrana (Comst.). An estimated 517 trees (27.38 percent) in the Georgia shortleaf pine geographic source are infested. The infestation levels in other sources ranged from 0.39% in the South Carolina loblolly (Piedmont) to 12.26% in the North Carolina loblolly.
- TEXAS During 1971 several reports of tip moth came in from Walker, Fayette, and Bastrop Counties. One report stated that 98 percent of the young shortleaf pines on several thousand acres had been affected. (Texas Forest Service)

CONEWORMS, Dioryctria sp.

- MISSISSIPPI Of 18 damaged longleaf pine grafts examined 13 were currently infested with Dioryctria sp. Larvae had bored through the aluminum foil wrapped around the graft and mined the graft itself.

HARDWOOD DEFOLIATORS

FOREST TENT CATERPILLAR, Malacosoma disstria Hbn.

- ALABAMA An aerial survey of the Mobile and Tensas River Basins in southwest Alabama showed a gross area of 49.5 M acres of water tupelo defoliated by the caterpillar. Approximately 30 M acres was classified as heavy damage.
- FLORIDA Moderate infestations of forest tent caterpillar have been detected over about 5,000 acres in Marion County in west central Florida. (Florida Division of Forestry).
- KENTUCKY Forest tent caterpillar activity this year was limited to 117 acre area near Madison, Kentucky. Oak was the primary host with 30 to 100 percent defoliation. (Kentucky Division of Forestry)
- LOUISIANA An aerial survey conducted by the Louisiana Forestry Commission revealed an estimated 415 M acres defoliated by the caterpillar.

Most of the defoliation was southwest of Lake Maurepas, west of Lake Verret and east of Lake Palourde.

NORTH CAROLINA The forest tent caterpillar has defoliated an estimated 1200 acres of hardwood near Woodville in Bertie County. The area is lowland with a predominantly gum timber type. All the gums in the area were almost completely defoliated. Ashes, maples, cottonwoods, and cypresses scattered throughout the area were not attacked. Although the trees attacked will probably sustain growth loss, significant mortality is not expected. (North Carolina Division of Forestry)

### MISCELLANEOUS INSECTS

#### BALSAM WOOLLY APHID - Adelges piceae (Ratz.)

NORTH CAROLINA Aerial sketchmap surveys over the total 60,000 acre host fir type conducted in June of last year for Balsam Woolly Aphid showed increased fir mortality inside and outside of established protection zones. Trap-  
TENNESSEE ping surveys conducted in the protection zones during September and October 1971 revealed new infestations on Roan Mountain, Mount  
VIRGINIA Mitchell, and in the Balsam Mountains along the Blue Ridge Parkway. Ground examination of these new infestations revealed light to heavy aphid populations. Mount Rogers in Virginia is the only major area of host type that remains uninfested. An aerial sketchmap survey in June 1972 revealed several new spots of dying fir in the Shining Rock Wilderness Area and in the Great Smoky Mountains National Park near Clingman's Dome. These trees were most likely killed by the aphid. Ground surveys to confirm the cause of the mortality are planned. Unless suppression action is initiated, increased fir mortality can be expected in some of the protection zones during 1972.

Suppression measures were initiated within the protection zone on the Roan Mountain (Toecane Ranger District of the Pisgah National Forest). Over 1,700,000 high value fir were sprayed.

Suppressive measures on the Mount Mitchell State Park are being planned.

#### FALL WEBWORM, Hyphantria cunea (Drury)

ARKANSAS The red-headed strain of fall webworm is common throughout the entire State. Larvae are full grown and pupating in the southern half of the State. Most damage to pecan is moderate to heavy. Pruning of small nests is being recommended to prevent spread. (Arkansas Forest Pest Report)

#### GYPSY MOTH, Porthetria dispar (L.)

ALABAMA The Alabama Forestry Commission has 300 traps set out for gypsy moth. There have been no positive trappings to the present. (Alabama Forestry Commission)



VIRGINIA Two professionals of the Virginia Division of Forestry staff have just completed a 6 week detail in New Jersey for purposes of gypsy moth parasite collection and rearing. During the course of the 6 weeks, over 43,000 gypsy moth larvae were collected and reared to pupae stage for subsequent parasite collection. Several hundred puparia of the parasitic fly Compsilura concinnata were successfully reared for release in Virginia this summer. Two releases have already been made in Albemarle County. (Virginia Division of Forestry)

A gypsy moth defoliation survey conducted in northern and north coastal Virginia by Forest Pest Management in cooperation with the Virginia Division of Forestry in July indicated no visible defoliation.

DEODAR WEEVIL, Pissodes nemorensis Germ.

MISSISSIPPI There has been some "top kill" attributed to this weevil in the northern part of the State. Most mortality has occurred in pulpwood size trees.

COLUMBIAN TIMBER BEETLE, Corthylus columbianus Hopk.

ALABAMA Activity of this beetle has been confirmed in oaks and the Tree of Heaven near Chapman and Ozark, Alabama. (Alabama Forestry Commission)

#### STATUS OF FOREST DISEASES

##### SHADE TREE DISEASES

MIMOSA WILT caused by Fusarium oxysporum f. perniciosum (Hept.) Toole

LOUISIANA Scattered mortality of the imported mimosa or silktree (Albizzia julibrissin Durazz.) has been observed in and around the Alexandria-Pineville, Louisiana area for more than 5 years. Until recently, most of the mortality has been caused by the root rot fungus Polyporus lucidus Fr. However, recent isolations from dead and dying trees from two separate locations in the suburbs of Pineville have yielded the fungus Fusarium oxysporum f. perniciosum, which is the cause of mimosa wilt. No effective methods are presently available for controlling either disease and it is expected that increased mortality will eventually reduce the use of mimosa as a shade or ornamental tree in this area.

DUTCH ELM DISEASE caused by Ceratocystis ulmi, (Buism)  
C. Moreau

KENTUCKY Dutch elm disease, elm phloem necrosis and sycamore anthracnose were prevalent State-wide this year. (Kentucky Division of Forestry)



NORTH CAROLINA Dutch elm disease has been observed much more frequently this spring and early summer than in previous years in the Piedmont of North Carolina. The first confirmed report of this disease in Stanly County occurred this year. (North Carolina Division of Forestry)

SOUTH CAROLINA Dutch elm disease is becoming widespread in the central Piedmont section of the State. Early symptoms were observed in many trees in Laurens, Chester, and York Counties during May and June. Most of the trees are winged elm. (South Carolina State Commission of Forestry)

OAK WILT caused by Ceratocystis fagacearum (Bretz) Hunt

KENTUCKY A recent 20 percent survey covering a 12 county area in eastern Kentucky revealed no positive oak wilt trees by laboratory diagnosis. (Kentucky Division of Forestry)

NORTH CAROLINA The annual oak wilt survey is also in progress in selected mountainous counties of western North Carolina where oak wilt has been known to be present for approximately 20 years. However, the incidence of the disease has been low in recent years and no control action is anticipated this year.

SOUTH CAROLINA Oak wilt continues to occur sporadically in South Carolina and has now been detected in four South Carolina piedmont counties. However, a widespread survey in nine counties in the summer of 1971 revealed only one new infection center in Richland County which represented a new location for the disease. With the exception of a few selected high-value municipality shade trees, no control is planned or anticipated. (South Carolina Commission of Forestry)

VIRGINIA The annual oak wilt survey is currently underway in Virginia. No control treatment is anticipated.

#### FOREST AND PLANTATION DISEASES

COMANDRA BLISTER RUST caused by Cronartium commandrae

KENTUCKY Comandra blister rust infection and damage was found for the first time in Kentucky in a 6-year-old loblolly pine plantation in Crittenden County. Infection on pine was severe with 75+ % visible rust cankers (stem and branch) in the small plantation. Crittenden county is located in the northwestern edge of Kentucky near the Ohio River and Paducah, Kentucky. (Kentucky Division of Forestry)

TENNESSEE Final measurements were taken on plots established in 1968 in a comandra rust study in loblolly pine plantations on the Cumberland Plateau. This completes a 5-year evaluation of the severity and spread of the disease in young plantations by the Tennessee Division of Forestry and the Division of Forest Pest Management. A final report will be published in mid-summer.

KENTUCKY The third annual examination of 8 species of pine in a comandra rust susceptibility test on University of Tennessee land near Tullahoma has brought no surprising results to date. Slash, pond, and shortleaf pines, in that order, have sustained the most infections and all mortality to date. Several loblolly were infested this year for the first time, but no mortality has yet occurred. No infections have been observed on Virginia, white, red, or Japanese black pine. Toadflax, the alternate host, has been observed within a few meters of all infected trees. (Tennessee Division of Forestry)

BROWN SPOT NEEDLE BLIGHT caused by Scirrhia acicola

TENNESSEE Investigations by the Tennessee Division of Forestry and the Forest Pest Management Group (United States Forest Service) have confirmed that the brown spot needle blight fungus, Scirrhia acicola, usually associated with longleaf pine in the grass stage in the Gulf Coastal Plain, is responsible for the needle blight on white pine at the Tennessee Division of Forestry nursery at Pinson. Bordeaux mixture has been recommended and is being applied once a month until September for control.

Two new fungicides, Daconil and Topsin M are being applied by the Tennessee Division of Forestry personnel on a test basis to determine if few applications of either or both chemicals will provide adequate control of the disease in nursery stock. The test is being monitored by Forest Pest Management in Asheville.

Severe brown spot infection has also been discovered in a Christmas tree planting of Austrian pine, Pinus niora, at the University of Tennessee's Highland Rim Experimental Forest near Tullahoma. At least 100 percent of the trees are infected. Control measures include a Bordeaux mixture spray schedule. At least 50 percent mortality could probably be expected this year if no control measures are applied. (Tennessee Division of Forestry)

WHITE PINE BLISTER RUST caused by Cronartium ribicola

VIRGINIA An increased incidence of blister rust infection and damage in young white pine plantations this past year has resulted in the initiation of ribes eradication in two Virginia counties. This is a cooperative cost-sharing project between the Virginia Division of Forestry and Forest Pest Management and involves 320 acres in Carroll County and 30 acres in Augusta County. Control is being accomplished by use of an oil base spray of 2, 4, 5-T (4 pound acid equivalent) in Number 2 fuel oil (1:30 ratio) applied as a basal application to the ribes bushes.

High-hazard blister rust sites continue to present a problem and require localized control action on the Shenandoah National Park in Virginia. Several recreation and scenic areas with their aesthetically high-value white pine and high rust-hazard conditions have demanded periodic

- VIRGINIA  
(CONT'D) survey and control action during the past ten years. Control on the park is presently being accomplished with the herbicide silvex which was recently substituted for the previously used standard 2-4-5, T treatments.
- PITCH CANKER caused by Fusarium lateritium, F. pini
- FLORIDA Over 4,000 acres of pitch canker infected 8 to 10 year old slash pine was detected in Bay County, Florida. (Florida Division of Forestry)
- OKLAHOMA Twig dieback of shortleaf pine was observed in Oklahoma. Atropellis tingens was found fruiting on cankered areas of the branches. A spring drought is believed to have predisposed the trees to attack by the fungus.
- LOUISIANA Damping off and root rot were severe in greenhouse grown pine seedlings. Most of the damage occurred on longleaf, loblolly, and shortleaf pine with little damage occurring on slash pine. Longleaf pine was most seriously affected. The pine seedlings were being grown in paper tubes with a peat-perlite-vermiculite growing medium. Fusarium was isolated from the diseased and dead seedlings. Drenching with a captan-terrachlor mixture (3 lb/100 gal of water) immediately after finding the fungus resulted in a good growth response from the seedlings. Subsequent drenches resulted in sufficient recovery to permit shipping of the seedlings on schedule. The rapid development and spread of the disease is believed to have occurred as a result of transplanting seedlings from tubes with multiple seedlings to tubes with no seedlings.
- OKLAHOMA Eastern red cedar continues to be severely affected by Phomopsis blight at a State nursery in central Oklahoma. Puritized Agricultural Spray which was used to control this disease is no longer used because it is a mercury containing compound. An increase in the prevalence of the blight occurred after discontinuing the use of this chemical last fall.

#### NURSERY AND SEED ORCHARD DISEASES

CYLINDROCLADIUM ROOT ROT caused by Cylindrocladium sp.

- KENTUCKY Cylindrocladium root rot was recently isolated from 1-0 walnut seedlings obtained from the Pennyrile State Nursery near Dawson Springs, Kentucky. Symptomatic walnut seedlings were observed in several (8-10) nursery seedbeds around the nursery. However, the observable disease incidence appeared to be very low (less than 1 %) at this time. This is now the second nursery in Kentucky affected with cylindrocladium root rot as the disease was detected in the Morgan County Nursery in October 1971. The disease has now been detected in 12 nurseries in seven southern states (Kentucky, Virginia, Tennessee, North Carolina, South Carolina, Alabama, and Mississippi).

- LOUISIANA Pine needle rust caused by Coleosporium sp. was prevalent at the Stuart Seed Orchard this spring. Although some trees were heavily affected and some defoliation occurred, no significant growth loss by the infected trees has been noticed.
- MISSISSIPPI A Fusarium sp. was isolated from diseased root tips of chlorotic sand pines at the Erambert Seed Orchard. Sand pine at this orchard has been dying for the past few years and the successful establishment of a sand pine orchard is doubtful. Diseased trees have root systems in which a large number of the root tips are killed. Eventually the entire root system dies leading to death of the tree.



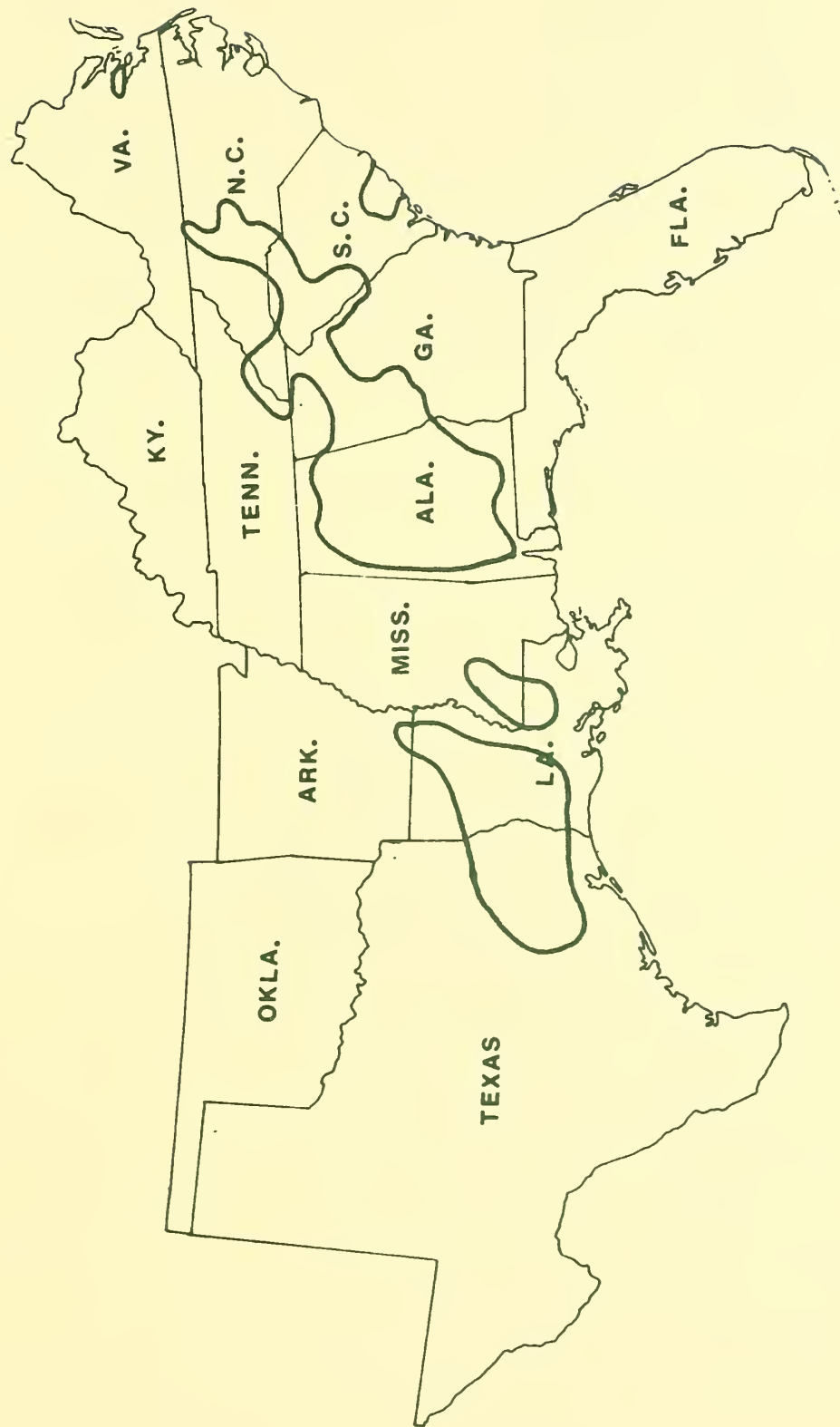


Figure 1. Southern Pine Beetle-Infested Area

More detailed information can be obtained by writing to the Forest Pest Management Group Field Offices listed below or the Atlanta Office:

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Georgia  
Kentucky  
North Carolina  
South Carolina  
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